Abstract of the Disclosure

Thermally stable transitional alumina particulates retaining high specific surface area after calcination at 1000°C suitable for the use as catalysts or catalysts supports are produced by treating an aqueous solution containing Al^{3+} and optionally a doping amount of La^{3+} (e.g., 0.3 mol. %) with an anion-exchange resin to give a stable hydroxide sol followed by freeze drying of the sol and further thermal dehydration. The resultant stabilized transitional alumina retains high specific surface area at 1000°C, and additionally stabilization is achieved at very low levels of added La.